March 1, 1972

Dr. Maxine Singer
Department of Genetics
Weizmann Institute of Science
Rehovot, Israel

Dear Maxine:

Mr. Carrol is picking up some H. influenzae restriction endonuclease today and Kathy Danna will include a note regarding activity and use for digestion of SV40 DNA. I hope this will be enough enzyme for you to do the things you planned; if not, please let me know.

Let me tell you what we have done with DNA from defective SV40. As I told Ernest in an earlier letter, we were in the process of repeating earlier experiments which indicated that all the normal H. influenzae enzyme fragments were present in the digest of DNA from defective (light) particles, and in addition there were three and possibly four new fragments. We have done this analysis now on several different preparations of form I DNA, both from light SV40 virions directly and from the Hirt supernatant of cells infected with high passage stocks. The interesting thing is that all the usual fragments are present, but the new pieces are consistently of specific sizes, roughly 5.2×10^5, 4.8×10^5, 4.4×10^5, and 1.7×10^5 daltons, as estimated by electrophoretic mobility. These fragments may well have the cellular DNA. I would like also to check this point, but I have no answer as yet and will keep in close touch with you and Ernest.

The other experiments of interest to you concern the order of fragments in the molecule. We have an order of synthesis by pulse-labeling and Kathy Danna is analyzing partial digests to determine the physical order. I'll also keep you informed of these results.

I hope you are enjoying your time with Ernest, and in Israel, as much as I and my family did when we were there. Actually we are all anxious to get back to Israel soon; one of my sons will spend the coming summer there,

but the rest of us will stay in the U. S. Incidentally, I have just become chairman of the Microbiology Department at Hopkins, which is likely to restrict my sabbatical hopes for a while.

With warm regards to you and Ernest,

Sincerely,

Daniel Nathans

DN:as